

build regression models for underwritten assets;

select the best models for the underwritten assets;

count a number of times the models are selected; and

use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

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**Remarks**

The Office Action mailed September 12, 2002 has been carefully reviewed and the foregoing amendment has been made in consequence thereof. Submitted herewith is a Submission of Marked Up Claims.

Claims 1-30 are pending in this application. Claims 1-30 have been rejected.

The objection to the information disclosure statement filed March 29, 2001 under 37 CFR 1.98(a)(1) is respectfully traversed. Applicant has submitted herewith a supplemental information disclosure statement that satisfies the requirements of 37 CFR 1.98(a)(1). Accordingly, Applicant respectfully requests that the objection to the information disclosure statement be withdrawn.

The rejection of Claims 1-30 under 35 U.S.C. § 103(a) as being unpatentable over Stallaert et al. (U.S. Patent No. 6,035,287) ("Stallaert") is respectfully traversed.

Stallaert does not describe nor suggest predicting value of non-underwritten assets for which data representations are partial or incomplete. Rather, Stallaert teaches a method of

trading a bundle of assets wherein the bundle of assets is valued, alleviating the need to value and trade assets individually. In other words, Stallaert describes a method that avoids the valuing and trading of assets on an individual basis by valuing and trading assets in a bundle, whereas the present invention describes a method for predicting value of non-underwritten assets on an individual basis wherein the non-underwritten assets have partial or incomplete data representations.

Stallaert describes a method and apparatus that enables market participants to trade bundles of assets, including assets in different asset classes. In Stallaert, an electronic data processing system (800) executing a trade matching mechanism provides the function of a market intermediary, recombining assets from different market participants such that the requirements of participants seeking to acquire a particular asset are satisfied by participants seeking to dispose of the same asset. According to Stallaert, a market participant may value a bundle of assets as an entity, alleviating the need to attempt to attain a value objective in the aggregate by valuing and trading assets individually. A bundle of assets (100a-100d) to be traded is then entered into system (800), wherein proportions (101-104) of each asset to be traded in units of a specified bundle size are provided by the market participant. Assets to be acquired by one market participant are matched against the same asset which other market participants are seeking to dispose. An exchange of bundled assets among market participants, in units of the bundles themselves is effected when the exchange satisfies a predetermined set of criteria.

Applicant respectfully submits that the Section 103 rejection of Claims 1-30 is not a proper rejection. The mere assertion that such an apparatus would have been obvious to one of ordinary skill in the art does not support a prima facie obvious rejection. Rather, each allegation of what would have been an obvious matter of design choice must always be supported by citation to some reference work recognized as standard in the pertinent art, and Applicant given an opportunity to challenge the correctness of the assertion or the repute of the cited reference. Applicant has not been provided with the citation to any reference supporting the combination made in the rejection. The rejection, therefore, fails to provide the Applicant with a fair opportunity to respond to the rejection, and fails to provide the Applicant with the opportunity to

challenge the correctness of the rejection. Therefore, Applicant respectfully request that the Section 103 rejection be withdrawn.

Applicant further traverses the suggestion in the Office Action that “it would have been obvious for an artisan of ordinary skill at the time of Stallaert to chose various asset valuation models/methods because an artisan at the time of the invention was made would recognize the advantage of using different models for various types of assets during various times in the economic cycle.” Applicant respectfully submits that Stallaert does not describe nor suggest building regression models for underwritten assets, selecting the best models for the underwritten assets, and using the selected model to make a prediction of underwriting value for the non-underwritten assets. Moreover, Applicant respectfully submits that Stallaert does not describe nor suggest predicting the value of non-underwritten assets having partial or incomplete data representations.

Furthermore, and to the extent understood, Stallaert does not describe nor suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited reference. Specifically, Claim 1 recites a method for predicting value of non-underwritten assets for which data representations are partial or incomplete, wherein the method includes the steps of “sampling assets according to risk...underwriting assets and recording valuations...forming market value clusters...building regression models for underwritten assets...selecting the best models for the underwritten assets...counting a number of times the models are selected...and using the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.”

Stallaert does not describe nor suggest a method for predicting value of non-underwritten assets for which data representations are partial or incomplete that includes sampling assets according to risk, underwriting assets and recording valuations, forming market value clusters,

building regression models for underwritten assets, selecting the best models for the underwritten assets, counting a number of times the models are selected, and using the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

More specifically, Stallaert does not describe nor suggest a method for predicting value of non-underwritten assets for which data representations are partial or incomplete that includes using a selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

Rather, Stallaert describes a method and apparatus that enables market participants to trade bundles of assets, including assets in different asset classes. In contrast to the present invention, Stallaert does not address the issue of predicting value of non-underwritten assets for which data representations are partial or incomplete. Although Stallaert mentions at column 2, lines 53-55 that bundles of assets are specified in terms of a bundle size, and a set of values representing the proportions of each of the assets to be exchanged in terms of the bundle size, Stallaert does not describe nor suggest predicting a value of non-underwritten assets. In fact, Stallaert teaches away from the present invention. Specifically, Stallaert teaches a method of trading a bundle of assets wherein the bundle of assets is valued as an entity, alleviating the need to value and trade assets individually (see Stallaert Abstract). In other words, Stallaert describes a method that avoids the valuing and trading of assets on an individual basis, whereas the present invention describes a method for predicting value of non-underwritten assets on an individual basis. Moreover, Stallaert does not even address the issue of predicting value of non-underwritten assets for which data representations are partial or incomplete. Accordingly, Applicant respectfully submits that Claim 1 is patentable over Stallaert.

For at least the reasons set forth above, Applicant respectfully submits that Claim 1 is patentable over Stallaert.

Claims 2-9 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-9 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-9 likewise are patentable over Stallaert.

Claim 11 recites a system for predicting value of non-underwritten assets for which data representations are partial or incomplete that includes a computer configured as a server and further configured with a database of asset portfolios, and at least one client system connected to the server through a network, wherein the server is configured to “sample assets according to risk...underwrite assets and record valuations...form market value clusters...build regression models for underwritten assets...select the best models for the underwritten assets...count a number of times the models are selected...and use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.”

Stallaert does not describe nor suggest a system for predicting value of non-underwritten assets for which data representations are partial or incomplete that includes a server that is configured to sample assets according to risk, underwrite assets and record valuations, form market value clusters, build regression models for underwritten assets, select the best models for the underwritten assets, count a number of times the models are selected, and use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

More specifically, Stallaert does not describe nor suggest a system for predicting value of non-underwritten assets for which data representations are partial or incomplete that includes a server that is configured to use a selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

Rather, Stallaert describes a method and apparatus that enables market participants to trade bundles of assets, including assets in different asset classes. Although Stallaert mentions that the bundles of assets are specified in terms of a bundle size, and a set of values representing the proportions of each of the assets to be exchanged in terms of the bundle size, Stallaert does not describe nor suggest predicting a value of non-underwritten assets. In fact, Stallaert teaches away from the present invention. Specifically, Stallaert teaches a method of trading a bundle of assets wherein the bundle of assets is valued as an entity, alleviating the need to value and trade assets individually (see Stallaert Abstract). In other words, Stallaert describes a method that avoids the valuing and trading of assets on an individual basis, whereas the present invention describes a system for predicting value of non-underwritten assets on an individual basis. Moreover, in contrast to the present invention, Stallaert does not address the issue of predicting value of non-underwritten assets for which data representations are partial or incomplete. Accordingly, Applicant respectfully submits that Claim 11 is patentable over Stallaert.

For at least the reasons set forth above, Applicant respectfully submits that Claim 11 is patentable over Stallaert.

Claims 12-20 depend, directly or indirectly, from independent Claim 11. When the recitations of Claims 12-20 are considered in combination with the recitations of Claim 11, Applicant submits that dependent Claims 12-20 likewise are patentable over Stallaert.

Claim 21 recites a computer configured to predict value of non-underwritten assets for which data representations are partial or incomplete that is programmed to "sample assets

according to risk...underwrite assets and record valuations...form market value clusters...build regression models for underwritten assets...select the best models for the underwritten assets...count a number of times the models are selected...and use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.”

Stallaert does not describe nor suggest a computer configured to predict value of non-underwritten assets for which data representations are partial or incomplete that is programmed to sample assets according to risk, underwrite assets and record valuations, form market value clusters, build regression models for underwritten assets, select the best models for the underwritten assets, count a number of times the models are selected, and use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

More specifically, Stallaert does not describe nor suggest a computer configured to predict value of non-underwritten assets for which data representations are partial or incomplete that is programmed to use a selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

Rather, Stallaert describes a method and apparatus that enables market participants to trade bundles of assets, including assets in different asset classes. Although Stallaert mentions

that the bundles of assets are specified in terms of a bundle size, and a set of values representing the proportions of each of the assets to be exchanged in terms of the bundle size, Stallaert does not describe nor suggest predicting a value of non-underwritten assets. In fact, Stallaert teaches away from the present invention. Specifically, Stallaert teaches a method of trading a bundle of assets wherein the bundle of assets is valued as an entity, alleviating the need to value and trade assets individually (see Stallaert Abstract). In other words, Stallaert describes a method that avoids the valuing and trading of assets on an individual basis, whereas the present invention describes a computer for predicting value of non-underwritten assets on an individual basis. Moreover, in contrast to the present invention, Stallaert does not address the issue of predicting value of non-underwritten assets for which data representations are partial or incomplete. Accordingly, Applicant respectfully submits that Claim 21 is patentable over Stallaert.

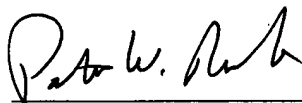
For at least the reasons set forth above, Applicant respectfully submits that Claim 21 is patentable over Stallaert.

Claims 22-30 depend, directly or indirectly, from independent Claim 21. When the recitations of Claims 22-30 are considered in combination with the recitations of Claim 21, Applicant submits that dependent Claims 22-30 likewise are patentable over Stallaert.

For at least the reasons set forth above, Applicant respectfully request that the 35 U.S.C. § 103(a) rejection of Claims 1-30 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in the application are believed to be in condition for allowance. Favorable action is respectfully solicited.

Respectfully Submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tim K. Keyes

Serial No.: 09/745,821

Filed: December 21, 2000

For: VALUATION PREDICTION  
MODELS IN SITUATIONS  
WITH MISSING INPUTS



Art Unit: 3624

Examiner: Daniel S. Felten

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SUBMISSION OF MARKED UP CLAIMS

Commissioner for Patents  
Washington, D.C. 20231

Submitted herewith are marked up Claims in accordance with 37 C.F.R. 1.121(c)(1)(ii).

IN THE CLAIMS

1. (once amended) A method for predicting value of non-underwritten assets for which data representations are partial or incomplete [by projecting values onto the non-underwritten assets from at least one of fully underwritten assets, other non-underwritten assets with complete data representations and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics], said method comprising the steps of:

sampling assets according to risk;

underwriting assets and recording valuations;

forming market value clusters;

building regression models for underwritten assets;

selecting the best models for the underwritten assets;

counting a number of times the models are selected; and

using the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

11. (once amended) A system for predicting value of non-underwritten assets for which data representations are partial or incomplete [by projecting values onto the non-underwritten assets from at least one of fully underwritten assets, other non-underwritten assets with complete data representations and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics], said system comprising:

a computer configured as a server and further configured with a database of asset portfolios;

at least one client system connected to said server through a network, said server configured to sample assets according to risk, underwrite assets and record valuations, form market value clusters, build regression models for underwritten assets, select the best models for the underwritten assets, count a number of times the models are selected, and use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

21. (once amended) A computer configured to predict value of non-underwritten assets for which data representations are partial or incomplete [by projecting values onto the non-underwritten assets from at least one of fully underwritten assets, other non-underwritten assets with complete data representations and available data from non-underwritten assets with partial

or incomplete data representations having similar identifiable characteristics], said computer including a database of asset portfolios, said computer programmed to:

sample assets according to risk;

underwrite assets and record valuations;

form market value clusters;

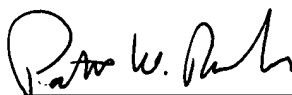
build regression models for underwritten assets;

select the best models for the underwritten assets;

count a number of times the models are selected; and

use the selected model to make a prediction of underwriting value for the non-underwritten assets such that the predicted underwriting value for the non-underwritten assets with partial or incomplete data representations is based on at least one of fully underwritten assets, other non-underwritten assets with complete data representations, and available data from non-underwritten assets with partial or incomplete data representations having similar identifiable characteristics.

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